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SNOW SURVEYS AND IRRIGATION WATER FORECASTS

FOR OREGON

AS OF

MARCH 1, 1938

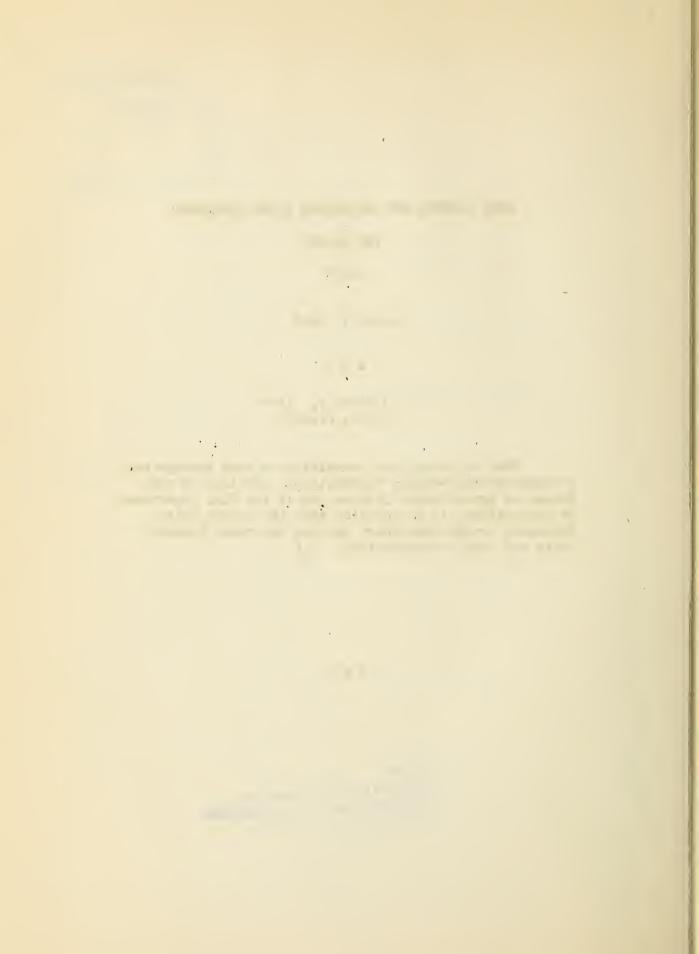
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Issued March 9, 1938 Hedford, Oregon

The following data pertaining to snow surveys and irrigation water-supply forecasts are provided by the Bureau of Agricultural Engineering of the U.S. Department of Agriculture, in cooperation with the Oregon State Engineer, Oregon Experiment Station and other Federal, State and local organizations.

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Status of valley precipitation as of October 1 to date:

Nov. Dec. Jan. Feb. Period	P D P D P D P	81 +.98 1.89 + 40 +.76 2.41 23 +.45 2.41 0914 2.96 60 +.69 2.26 61 +3.54 4.71 24 +1.05 2.88
Jan.	Д	
• ၁	Д	
I	Д.	1.89 2.55 2.54 1.72 2.96 2.96 7.11 8.8
• A0	А	+1.04 +1.04 +.76 +.45 +3.54 +1.05
Ĭ	<u>р</u> ,	1.81 2.96 2.96 2.23 3.09 7.61 7.61
Oct.	Ð	+ + • 52 + • • 60 + • • 12 + • • 73 + 18
0	Δ4	1.98 1.04 1.97 1.62 3.06
Month	Section	S.E. S.C. N.C. Col. Riv. Wal. Lits. Blue Mts. Southern

P - Inches precipitation.

D - Inches departure from normal.

- Southeastern Oregon range lands, Harney and Malheur Counties. S,C

- Southcentral Oregon range lands, Lake County and Klamath County, except the Cascade Mountains. - Northcentral Oregon wheat and range lands, Crook, Deschutes, Jefferson, Wheeler and N.C.

Grant Counties.

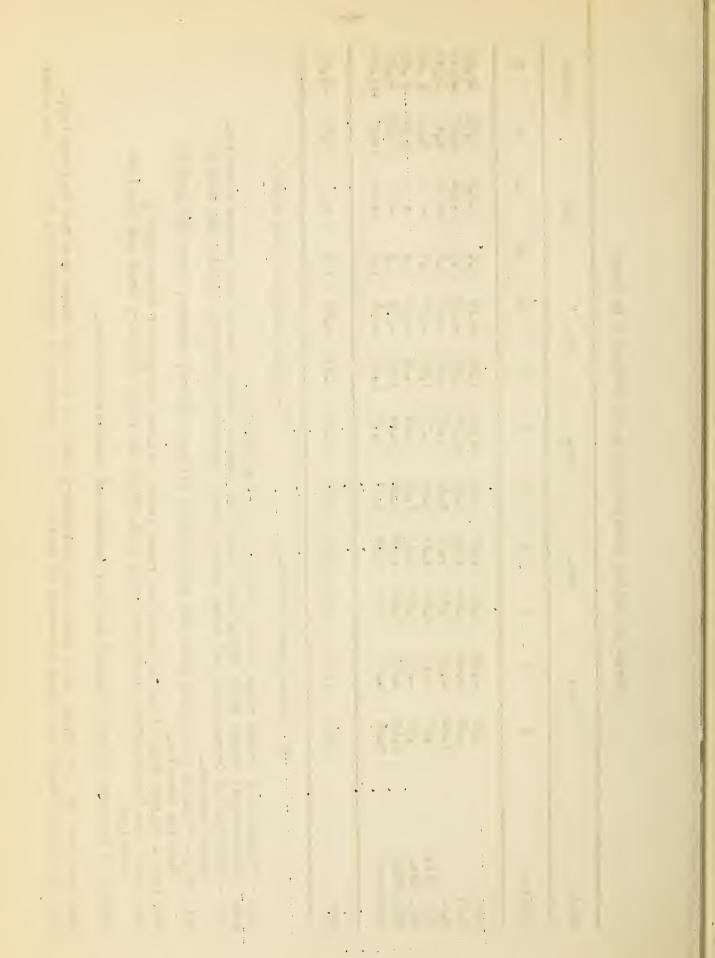
Riv. - Columbia River area wheat and range lands, Gilliam, Morrow, Sherman, Wasco and part of

Umatilla Counties.

Blue Mts. . The Blue Mountain Forest and range area, Union and parts of Baker, Grant and Umatilla Wal. Mts. - Wallowa Mountain area forest and range lands, Wallowa and part of Baker County.

Southern - Southern Oregon irrigated section, Jackson and Josephine Counties.

Data for earlier months have been corrected to include all the stations in climatological data for the area. Note: Data for the last month shown above are preliminary only, as they are based on a few stations only.



COMPARISON OF SNOW COVER WITH THAT OF PREVIOUS YEARS

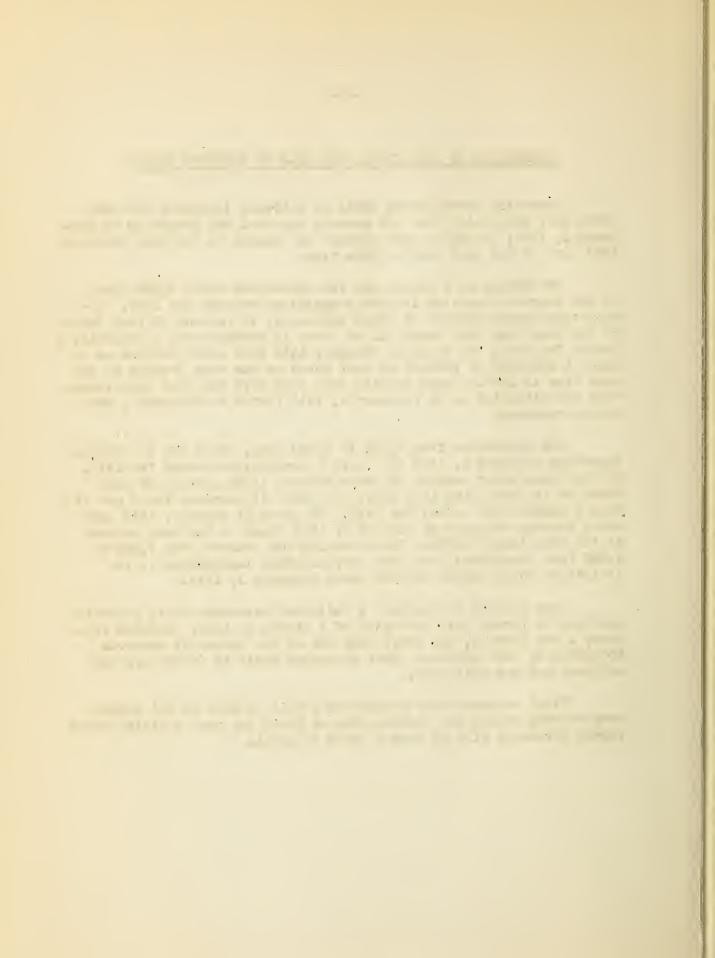
Generally heavy storms early in February increased the snow cover very materially over the amounts reported for Oregon as of February 1, 1938. Mountain snow storage in general is now only slightly less than it was last year at this time.

For Oregon as a whole, and for elevations above 5,000 feet, of the courses reporting 13 have comparative records for 1937. Average snow water content of these courses is 94 percent of that found at the same time last year. 12 of these 13 courses have a comparative record for 1936. On these 12 courses, 1938 snow water content as of March 1 averages 72 percent of that found on the same courses at the same time in 1936. These results then show very material improvement over the situation as of February 1, 1938 (refer to February 1 Snow Survey release).

For elevations from 3,000 to 5,000 feet, there are 17 courses reporting on March 1, 1938 that have a comparative record for 1937. Average snow water content of these courses is 80 percent of that found at the same time last year. Of these 17 courses, there are 14 with a comparative record for 1936. On these 14 courses, 1938 snow water content averages 94 percent of that found on the same courses at the same time in 1936. These results for courses from 3,000 to 5,000 feet elevations then show very material improvement in the irrigation water supply outlook since February 1, 1938.

Snow reports on February 1 indicated watershed soils generally unfrozen or frozen only to depths of 3 inches or less. Between February 1 and March 1, the frost went out of the ground at numerous locations on snow courses. Most watershed soils in Oregon are now unfrozen and generally wet.

Final seasonal snow measurements will be made on all Oregon snow courses during the closing days of March and more definite water supply forecasts will be issued early in April.



STATUS OF RESERVOIR STORAGE AS OF FEBRUARY LAST

In the following tabulation, water storage in acre feet in some selected Oregon reservoirs as of about March 1, 1938 is compared with storage as of the same time in 1937.

G1 - "	, ,		In Sto	
Storage	Stream	Capacity	Acre	reet .
Reservoir	Basin	Acre. Ft.	About	About
			3-1-38	3-1-37
A	36.31	(0.000	07 (70	3.0.050
Agency Valley	Malheur	60,000	27,670	19,950
Crane Prairie	Deschutes	55,220**	40,235	37,800
Crescent Lake	Deschutes	80,000	33,680	26,300
Emigrant Gap	Rogue	8,200	6,704	1,090
Fish Lake	Rogue	7,720	4:350	4,884
Four Mile Lake	Klemath*	14,000	11,767	8,747
Gerber	Klamath	94:000	N,R,	35:540
Hyatt Prairie	Klamath*	16,000	7:665	5,000
McKay	Umatilla	75,000	30.790	8,054
Ochoco	Crooked	47 500	14.710	2,100
Owyhee	Owyhee	715,000	N R.	630,230
Wallowa Lake	Wallowa	40,320	14,610	7,120
Warm Springs	Malheur	170,000	42,250	16,000
Willow Creek	Malheur	26,000	750	Dry

^{*}By ditch to Rogue River side.

^{**40,500} by agreement.

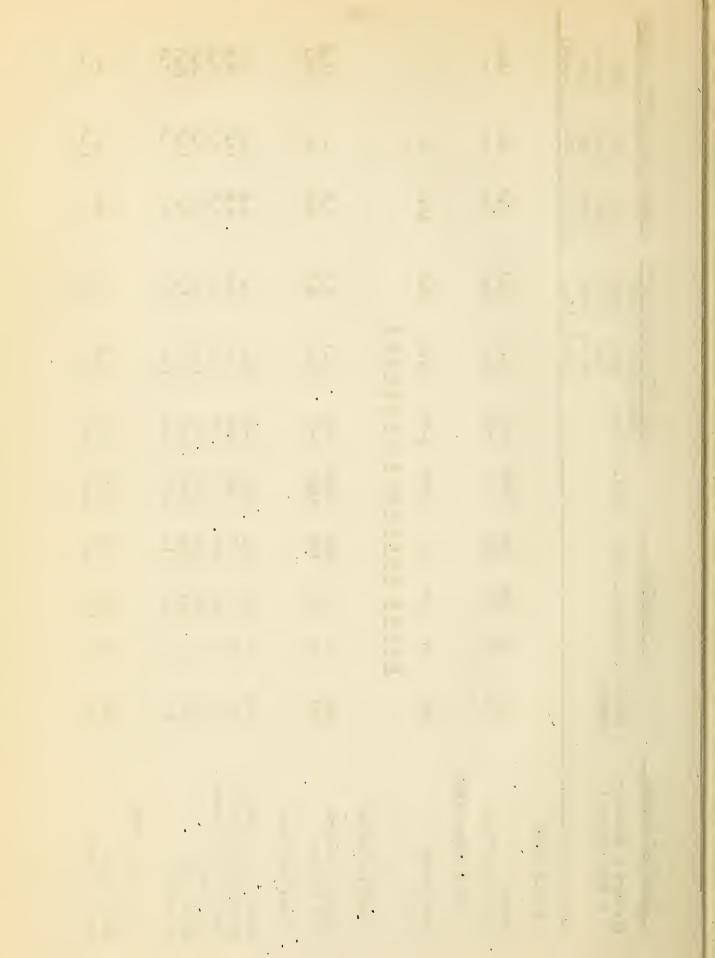
^{1/} The snow measurements are made principally by State Water-masters, employees of irrigation and power companies and Oregon Highway engineers, and field personnel of the following Federal Government organizations: Forest Service, Geological Survey, Bureau of Reclamation, Biological Survey, Indian Service, National Park Service and Bureau of Agricultural Engineering. This work is otherwise conducted cooperatively with the State Engineer of Oregon, Oregon Experiment Station, Oregon, Nevada and Idaho Cooperative Spen Surveys, and with the U.S.Weather Bureau.

^{2/} Water content determined by melting a measured sample. (The California Oregon Power Company Station).

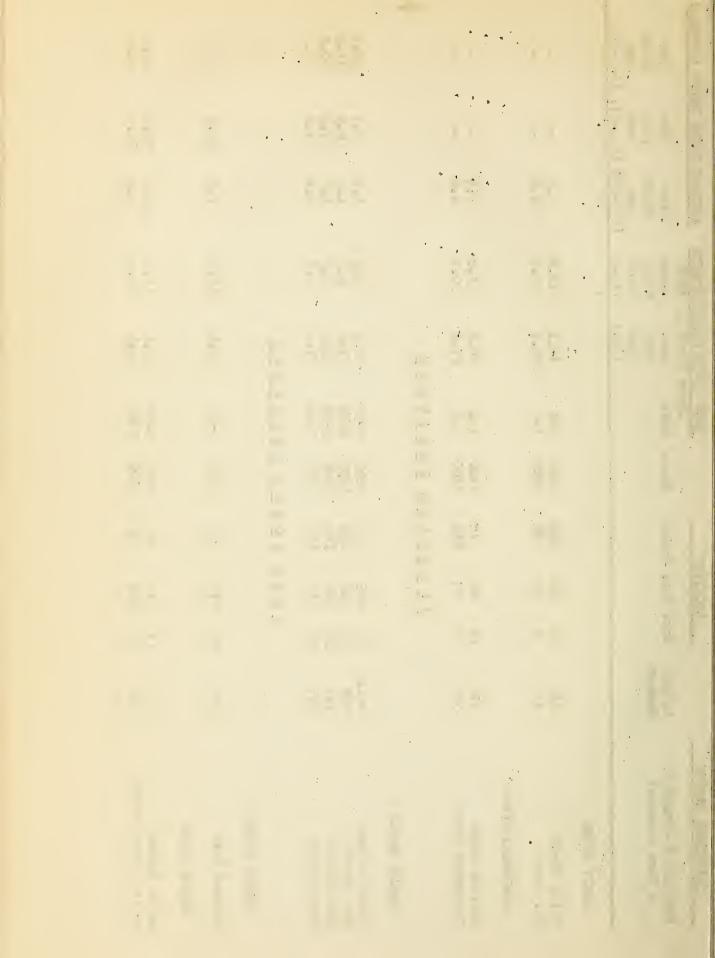


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28 163 14 95 20 153
,
25 12S 21 13S



TRIBUTARY BASINS		H	LOCATION			SNOV; CC	SNOW COVER MEASUREMENTS	REPENTS	AVERAGE	WATTER DEP	AVERAGE WATTER DEPTH (INCHES)
(Primary & Secondary & Snow Courses)	Oregon	S G G G	Sec. Twp. Range	ange	Elev.	About Date	About March 1, te Avg. Snow Depth (In.)	Avg. Water Depth (In.)	One Month ago (2-1-38)	One Year ago (3-1-37)	Two Years ago (3-1-36)
SANDY RIVER										-	
Still Creek Mt. Hood	451	25	38 38	8 沙瓦	3700	3-1-2-1-	34.1	12.8	6.1	i i	1 1
CLACKAMAS RIVER											100
Peavine Ridge Clackamas Lake	591 592	14 35	68 58	7五82五	3500	77	36.8 27.6	13.0	6.5	1 1	1 t
			H H H	RHO	R O R	AINA	원 원				-6-
HARNEY BASIN											-
Idylwild Camp Izee Sumnit	961A 964	33 28	20S 16S	31正 29正	5200	2-28	15.6	6.1	1.6	5.1	10.9
Rock Spring Starr Ridge	134 247	23	18S 15S	32E 31E	5100	2-28	15.3	3.5	1.3	2.0	10.4
			EI SI	이 당	(C)	RAIN	터 51 4				
UMPQUA RIVER						_					
Diamond Lake	743	29	278	王9	5315	2-24	62.6	18.2	1.9	21.2	å
ROGUE RIVER											
Annie Spring Billie Greek Divide	831 722	19	31S 36S	至5	6018	2-28	114.1	41.6	22.8	37.8	52.1 36.3



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1			1										-7	-																		
	Two	ago (3-1-36)	0 01	700	11 °4	ŧ	1	ı	1		52.1	0.0	36.3	ι	12,5	2,0	11,5	7.4	11.4	14.6	1	8.6	3.2	4.0	3.9	. 1	1	2.0	1		1	8 6
	One Year	~		7 / -	15,0 (,','	16.3	14.5	11.6	ı		37.8	1,5	27.4	10.5	70.2	4°0	10.5	8.2	15.0	9.5	9.4	7.2	7.0	4.7	9.2	1	1	8.4	ı			7.5
	One Month	age (2-1-38)	6.7	- L	く。 く。 く。	3.4	2,2	0°0	3.9		22,8	0.0	9.5	4.1	5,1	1.7	1.7	2.5	3.5	2.1	3.3	3.4	1.0	1.9	1.0	ı	10.9	0.5	4.0			m4 40
1938	Avg. Water	Depth (In.)	7	ָט ֖֖֖֖֖֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	0,27	16,1	11,3	6 ₂ 8	16.7		41,6	0.0	18.4	12.5	12.0	4.4	6.5	% %	12.6	7.0	10.2	10.5	4.0	3.2	4.2	15.2	24.4	3.0	8 8			10.5
t Harch 1	AVE. Snow	Depth (In,)	2, 1,5	74.7	22,4	45.0	34.9	18,8	51,1		114,1	0.0	9.65	38.4	31.0	9.5	23,0	18,5	35.4	22.0	34.0	29.0	11.0	8.7	17.5	44.0	70.5	11.0	28.6			28.6
About	Date		ک ۔ ک)	T. C	227	5-26	2-28	2-26		2~28	228	2~56	2-28	2~58	2~28	228	228	3-1	228	2-28	2-28	2-28	2-28	2-28	2~28.	2-56	2-28	2-27			2-28
	Elev.		4865	000	4900	3720	4630	3500	6800		6018	4300	0009	4760	4761	4187	4200	4150	4 900	4533	4960	5504	4 200	4800	4150	7200	. 5350	4600	2600			5504 5600
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	Oregon		725	717	(2)	7219	728	7218	7213		831		722	854					723	ı	835					841	836		837			827
TRIBUTARI BASTING	(Primary & Secondary & Snow Courses)		Fish Toko	I ISH Land	Hyatt Frairie Reservoir	Silver Burn	Siskiyou Summit	South Fork Canal	Wagner Butte	KLAMATH LAKE BASIN	Annie Spring	Beatty 2/	Billie Creek Divide	Н	. 2	Chiloquin $\frac{2}{}$			Hyatt Frairic Reservoir					Ranch	ľ	Summer Rim	Sun Mountain	Yamsey 2/	Strawberry	GOOSE LAKE BASIN		Quertz Mountain 2/ Strawbeary
	About Tarch 1	Oregon Sec. Twp. Range Elev. Date Avg. Number Snow Water	Oregon Sec. Twp. Range Elev. Date Avg. Snow Water Number Depth Depth (In.) (In.)	Courses) Number Courses About Harch 1, 1938 Avg. Avg. Show Water Courses Avg. Show Water Depth Depth (In.) (In.) (In.)	Oregon Sec. Twp. Range Elev. Date Avg. Avg. Number Snow Water Depth Depth (In.) (In.) (In.)	## About Harch 1, 1938 Courses) Number Courses) Number 725	Oregon Sec. Twp. Range Elev. Date Avg. Avg. Number 725 3 373 4E 4865 3-3 31.2 11.6 729 30 30S 4E 3720 2-27 45.0 16.1	Oregon Sec. Twp. Range Elev. Date Avg. Avg. Number 725 3 378 4E 4865 3-3 31.2 11.6 7219 30 308 4E 3720 227 45.0 16.1 728 17 403 2E 4630 2-26 34.9 11.3	Oregon Sec. Twp. Range Elev. Date Avg. Avg. Number Number 725	econdary Oregon Sec. Twp. Range Elev. Date Avg. Avg. Avg. urses) Number 725 3 378 4E 4865 3-3 31.2 11.6 Reservoir 729 30 308 4E 3720 2-27 45.0 16.1 7218 12 338 3E 3500 2-26 34.9 11.3 anal 7218 12 338 1W 6800 2-26 51.1 16.7	econdary Oregon Sec. 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